Polycyclic Aromatic Hydrocarbons in Dry Herbs: Source Identification, Quantification, and Health Risk Assessment

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Polycyclic aromatic hydrocarbons (PAHs) are amongst the most toxic compounds known to man. Several PAHs are proven to be carcinogenic, mutagenic, and teratogenic. Due to their wide distribution in the environment and their toxicity, it is considered important to monitor the levels of these compounds in foodstuffs. PAHs have been detected in many food products including plant-based such as vegetable oils, cereal grains, herbs, spices, teas, and supplements[1,2]. As the awareness of the healthy lifestyle has increased globally, the intake of medicinal herbs such as teas and spices has also grown immensely. Therefore, an even bigger emphasis must be made to monitor the toxic levels of PAHs in herbs. The maximum concentrations of certain contaminants in food in the Republic of Serbia included PAHs values in dry herbs only by the end of 2019 ("Official Gazette / RS", No. 81/2019)[3]. Herein, were investigated the sources of PAHs contamination in dry herbs collected from the different parts of Serbia, its quantification and the potential health risk posed by their toxicity.

Keywords: analytical chemistry, PAH, processing, pollution

References

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